

FOR INFORMATION/ACTION
DA-2006-46
September 21, 2006

SUBJECT: *Phytophthora ramorum* (ramorum blight & dieback, sudden oak death):
Listing and Regulation of Plants Recently Reported with *P. ramorum*

TO: STATE AND TERRITORY AGRICULTURAL REGULATORY OFFICIALS

On February 14, 2002, APHIS published an interim rule in the Federal Register for *P. ramorum* (7 CFR 301.92). This rule regulates the interstate movement of restricted and regulated articles to prevent the artificial spread of this disease-causing organism from areas where the disease is established. We also issued an Emergency Federal Order dated December 21, 2004, to regulate certain nurseries and plants to prevent the spread of the pathogen.

The purpose of this letter is to provide notification that APHIS will be regulating certain new species, effective October 10, 2006. This action is necessary as we have learned that *Castanopsis orthacantha*, *Cornus kousa* x *Cornus capitata*, *Distylium myricoides*, *Eucalyptus haemastoma*, *Ilex purpurea*, *Loropetalum chinense*, *Manglietia insignis*, and *Parakmeria lotungensis* can be infected by *P. ramorum* and need to be regulated in order to control the artificial spread of this disease. These new plant taxa have been added to the list, "Plants Associated with *Phytophthora ramorum*". We have also learned that Koch's postulates have been completed for four species: *Acer pseudoplatanus*, *Aesculus hippocastanum*, *Laurus nobilis*, and *Michelia doltsopa*. These will be added to the list, "Proven Hosts Regulated for *Phytophthora ramorum*."

There are two attachments to this SPRO: a "Federal Domestic Quarantine Order" which identifies the plants to be added to those regulated for *P. ramorum* in the Emergency Federal Order dated December 21, 2004, and the updated "APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*", dated September 11, 2006.

/s/ **Paul R. Eggert** for

Richard L. Dunkle
Deputy Administrator
Plant Protection and Quarantine

FEDERAL DOMESTIC QUARANTINE ORDER
***PHYTOPHTHORA RAMORUM*; 7 CFR 301.92**
September 20, 2006

Recent information from the Canadian Food Inspection Agency (CFIA) and the United Kingdom's Department for Environment, Food and Rural Affairs (DEFRA) has identified additional plants associated with *P. ramorum* not previously reported. CFIA reported the find of five naturally infected plants in a nursery setting. The United Kingdom's DEFRA reported several new detections of plants infected with *P. ramorum*. DEFRA also reported that Koch's postulates have been completed for a number of plants previously listed as plants associated with *P. ramorum*. The newly added plants are:

Castanopsis orthacantha

- Family: Fagaceae (Beech family)
- Common name: Castanopsis
- Symptoms: Leaf drip tip and mid-rib necrosis

Cornus kousa x Cornus capitata

- Family: Cornaceae (Dogwood family)
- Common name: Cornus Norman Haddon
- Symptoms: Shoot tip die-back

Distylium myricoides

- Family: Hamamelidaceae (Witch hazel family)
- Common name: Myrtle-leaved Distylium
- Symptoms: Leaf blight

Eucalyptus haemastoma

- Family: Myrtaceae (Myrtle family)
- Common name: Scribbly gum
- Symptoms: Chlorotic leaves

Ilex purpurea

- Family: Aquifoliaceae (Holly family)
- Common name: Oriental holly
- Symptoms: Leaf blight and tip die-back

Loropetalum chinense

- Family: Hamamelidaceae (Witch hazel family)
- Common name: Loropetalum
- Symptoms: Leaf blight

Manglietia insignis

- Family: Magnoliaceae (Magnolia family)
- Common name: Red lotus tree

- Symptoms: Leaf blight and tip die-back

Parakmeria lotungensis

- Family: Magnoliaceae (Magnolia family)
- Common name: Eastern joy lotus tree
- Symptoms: Leaf blight

On March 14, you were notified by a SPRO letter (DA#2006-09) and the accompanying Federal Domestic Quarantine Order that we were adding “Rosa ‘Meidiland’”, a group of cultivated roses to the list of regulated nursery stock. We are refining the listing for that entry. We have recently learned that the specific cultivars of rose which have been found in a nursery setting infected with *P. ramorum* are consistently found with “tags” applied at the grower, which will identify those specific cultivars. The nursery under inspection is to identify for inspectors which roses in stock match these listed cultivars with corresponding tags. This will avoid time consuming holds on their plants and additional inspections to assure all roses which require inspection are inspected. Those roses we had identified in the Federal Domestic Quarantine Order dated March 14, 2006, as “Rosa ‘Meidiland’” we are refining to read as: “Rosa (specific cultivars): Royal Bonica (tagged: “MEImodac”), Pink Meidiland (tagged: “MEIpoque”), Pink Sevillana (tagged: “MEIgeroka”)”.

DEFRA has now reported that Koch’s postulates have now been completed for four more species. Therefore, *Acer pseudoplatanus*, *Aesculus hippocastanum*, *Laurus nobilis*, and *Michelia doltsopa*, which had been listed as plants associated with *P. ramorum* and regulated only as nursery stock, are now listed as proven hosts. They are now added to those under regulation as per the Federal Order dated December 21, 2004 and 7 CFR 301.92-2 as regulated articles.

As an interim measure, the above plants are added to those already regulated as per PPQ Emergency Federal Order (Order) dated December 21, 2004, which regulates the movement of nursery stock from the States of Washington, Oregon and California. Those nurseries operating under a compliance agreement may continue to ship Hosts and Associated Plants including the newly listed plants. **Any other nurseries containing these newly listed associated plants must be properly inspected, sampled, tested and placed under a Compliance Agreement by October 10, 2006, to be able to move the above listed plants interstate.**

This action is authorized by the Plant Protection Act of June 20, 2000, as amended, Section 412(a), 7 U.S.C. 7712(a), which authorizes the Secretary of Agriculture to prohibit or restrict the movement in interstate commerce of any plant, plant part, or article if the Secretary determines the prohibition or restriction is necessary to prevent the dissemination of a plant pest within the United States.

APHIS List of Regulated Hosts and Plants Associated with *Phytophthora ramorum*

(Revision dated September 11, 2006)

This list is continually being updated.

The most current version is posted at: <http://www.aphis.usda.gov/ppq/ispm/pramorum>

Proven Hosts Regulated for *Phytophthora ramorum*

Scientific Name (47)	Common Name(s)	Notes
<i>Acer macrophyllum</i>	Bigleaf maple	
<i>Acer pseudoplatanus</i>	Planetree maple	Koch's postulates completed
<i>Aesculus hippocastanum</i>	Horse chestnut	Koch's postulates completed
<i>Adiantum aleuticum</i>	Western maidenhair fern	
<i>Adiantum jordanii</i>	California maidenhair fern	
<i>Aesculus californica</i>	California buckeye	
<i>Arbutus menziesii</i>	Madrone	
<i>Arctostaphylos manzanita</i>	Manzanita	
<i>Calluna vulgaris</i>	Scotch heather	
<i>Camellia spp.</i>	Camellia - all species, hybrids and cultivars	
<i>Castanea sativa</i>	Sweet chestnut	
<i>Fagus sylvatica</i>	European beech	
<i>Frangula californica</i> (= <i>Rhamnus californica</i>)	California coffeeberry	
<i>Frangula purshiana</i> (= <i>Rhamnus purshiana</i>)	Cascara	
<i>Fraxinus excelsior</i>	European ash	
<i>Griselinia littoralis</i>	Griselinia	
<i>Hamamelis virginiana</i>	Witch hazel	
<i>Heteromeles arbutifolia</i>	Toyon	
<i>Kalmia latifolia</i>	Mountain laurel	
<i>Lithocarpus densiflorus</i>	Tanoak	
<i>Lonicera hispidula</i>	California honeysuckle	
<i>Laurus nobilis</i>	Bay laurel	Koch's postulates completed
<i>Maianthemum racemosum</i> (= <i>Smilacina racemosa</i>)	False Solomon's seal	
<i>Michelia doltsopa</i>	Michelia	Koch's postulates

		completed
<i>Parrotia persica</i>	Persian ironwood	
<i>Photinia fraseri</i>	Red tip photinia	
<i>Pieris floribunda</i> and <i>Pieris floribunda x japonica</i> & all hybrids of <i>P. floribunda</i>	Mountain Andromeda	
<i>Pieris formosa</i> and <i>P. formosa x japonica</i> & all hybrids of <i>P. formosa</i>	Himalaya Andromeda	
<i>Pieris japonica</i> & all hybrids of <i>P. japonica</i>	Japanese Pieris	
<i>Pseudotsuga menziesii</i> var. <i>menziesii</i> & all nursery grown <i>P. menziesii</i>	Douglas fir	
<i>Quercus agrifolia</i>	Coast live oak	
<i>Quercus chrysolepis</i>	Canyon live oak	
<i>Quercus cerris</i>	European turkey oak	
<i>Quercus falcata</i>	Southern red oak	
<i>Quercus ilex</i>	Holm oak	
<i>Quercus kelloggii</i>	California black oak	
<i>Quercus parvula</i> var. <i>shrevei</i> & all nursery grown <i>Q. parvula</i>	Shreve's oak	
<i>Rhododendron spp.</i>	Rhododendron (including azalea) – all species, hybrids and cultivars	
<i>Rosa gymnocarpa</i>	Wood rose	
<i>Salix caprea</i>	Goat willow	
<i>Sequoia sempervirens</i>	Coast redwood	
<i>Syringa vulgaris</i>	Lilac	
<i>Taxus baccata</i>	European yew	
<i>Trientalis latifolia</i>	Western starflower	
<i>Umbellularia californica</i>	California bay laurel, pepperwood, Oregon myrtle	
<i>Vaccinium ovatum</i>	Evergreen huckleberry	
<i>Viburnum spp.</i>	Viburnum – all species, hybrids and cultivars	

Plants Associated with *Phytophthora ramorum*

(These are regulated only as nursery stock)

Scientific Name (58)	Common Name, Date & Source of Report	Notes
<i>Abies concolor</i>	White fir – Oct 05 (1)	
<i>Abies grandis</i>	Grand fir – June 03 (1)	
<i>Abies magnifica</i>	Red fir – Jan 06 (7)	
<i>Acer circinatum</i>	Vine maple – Feb 06 (5)	
<i>Acer davidii</i>	Striped bark maple – Jan 06 (9)	
<i>Acer laevigatum</i>	Evergreen Maple – Aug 05 (3)	
<i>Arbutus unedo</i>	Strawberry tree – Dec 02 (7)	
<i>Arctostaphylos columbiana</i>	Manzanita – Feb 06 (5)	
<i>Ardisia japonica</i>	Ardisia – Jan 06 (9)	
<i>Calycanthus occidentalis</i>	Spicebush – May 05 (5)	
<i>Castanopsis orthacantha</i>	Castanopsis - Aug 06 (3)	New listing - Reported found in the UK
<i>Ceanothus thyrsiflorus</i>	Blueblossom – April 06 (5)	
<i>Cinnamomum camphora</i>	Camphor tree – May 06 (3)	
<i>Clintonia andrewsiana</i>	Andrew's clintonia bead lily – May 04 (5)	
<i>Cornus kousa x Cornus capitata</i>	Cornus Norman Haddon – Aug 06 (3)	New listing - Reported found in the UK
<i>Corylus cornuta</i>	California hazelnut – Dec 02 (5)	
<i>Distylium myricoides</i>	Myrtle-leaved Distylium – Jul 06 (9)	New listing - Reported found in Canada
<i>Drimys winteri</i>	Winter's bark – July 04 (3)	
<i>Dryopteris arguta</i>	California wood fern – May 04 (5)	
<i>Eucalyptus haemastoma</i>	Scribbly gum – Aug 06 (3)	New listing - Reported found in the UK
<i>Euonymus kiautschovicus</i>	Spreading euonymus – Jan 06 (9)	
<i>Fraxinus latifolia</i>	Oregon ash – Aug 05 (5)	
<i>Gaultheria shallon</i>	Salal, Oregon wintergreen – Jan 06 (9)	
<i>Hamamelis x intermedia</i> (<i>H. mollis</i> & <i>H. japonica</i>)	Hybrid witchhazel – Jan 06 (9)	

<i>Hamamelis mollis</i>	Chinese witchhazel – Jan 05 (3)	
<i>Ilex purpurea</i>	Oriental holly – Jul 06 (9)	New listing - Reported found in Canada
<i>Kalmia angustifolia</i>	Sheep laurel – May 06 (3)	
<i>Leucothoe axillaris</i>	Fetterbush, dog hobble – Jan 06 (9)	
<i>Leucothoe fontanesiana</i>	Drooping leucothoe - Oct 03 (3)	
<i>Loropetalum chinense</i>	Loropetalum – Jul 06 (9)	New listing - Reported found in Canada
<i>Manglietia insignis</i>	Red lotus tree – Aug 06 (9)	New listing - Reported found in Canada
<i>Magnolia grandiflora</i>	Southern magnolia – Jan 06 (9)	
<i>Magnolia stellata</i>	Star magnolia – Jan 05 (3)	
<i>Magnolia x loebneri</i>	Loebner magnolia – Jan 05 (3)	
<i>Magnolia x soulangeana</i>	Saucer magnolia – Jan 05 (3)	
<i>Michelia maudiae</i>	Michelia – Jan 06 (9)	
<i>Michelia wilsonii</i>	Michelia – Jan 06 (9)	
<i>Nerium oleander</i>	Oleander – June 06 (1)	
<i>Nothofagus obliqua</i>	Roble beech – Dec 04 (3)	
<i>Osmorhiza berteroi</i>	Sweet Cicely – Aug 05 (5)	
<i>Osmanthus decorus</i> (≡ <i>Phillyrea decora</i> ; ≡ <i>P. vilmoriniana</i>)	Osmanthus – Jan 06 (9)	
<i>Osmanthus fragrans</i>	Sweet olive – June 06 (1)	
<i>Osmanthus heterophyllus</i>	Holly olive – June 06 (1)	
<i>Parakmeria lotungensis</i>	Eastern joy lotus tree – Jul 06 (9)	New listing - Reported found in Canada
<i>Pittosporum undulatum</i>	Victorian box – Dec 02 (6)	
<i>Prunus lusitanica</i>	Portuguese laurel cherry – Jan 06 (9)	
<i>Pyracantha koidzumii</i>	Formosa firethorn – Apr 04 (9)	
<i>Quercus acuta</i>	Japanese evergreen oak – May 06 (3)	
<i>Quercus petraea</i>	Sessile oak – Aug 05 (3)	
<i>Quercus rubra</i>	Northern red oak – Nov 03 (8)	
<i>Rosa</i> (specific cultivars) Royal Bonica (tagged:	Hybrid roses – Jan 06 (9)	Revised listing - Note that these are specific registered cultivars which can be identified by the

“MEI modac”)		listed tags
Pink Meidiland (tagged: “MEI poque”)		
Pink Sevillana (tagged: “MEI geroka”)		
<i>Rosa rugosa</i>	Rugosa rose – Jan 06 (9)	
<i>Rubus spectabilis</i>	Salmonberry – Dec 02 (4)	
<i>Taxus brevifolia</i>	Pacific yew – May 03 (5)	
<i>Taxus x media</i>	Yew – June 05 (8)	
<i>Torreya californica</i>	California nutmeg – Aug 05 (5)	
<i>Toxicodendron diversilobum</i>	Poison oak – Dec 02 (4)	
<i>Vancouveria planipetala</i>	Redwood ivy – Aug05 (5)	

- ¹ California Department of Food and Agriculture, Sacramento, CA
- ² Oregon Department of Agriculture. Salem, OR
- ³ Department for Environment, Food and Rural Affairs, UK
- ⁴ Everett Hanson, Oregon State University, Corvallis, OR
- ⁵ David Rizzo, University of California, Davis, CA
- ⁶ Matteo Garbelotto, University of California, Berkeley, CA
- ⁷ Gary Chastagner, Washington State University, Puyallup, WA
- ⁸ Plant Protection Service, Wageningen, Netherlands
- ⁹ Canadian Food Inspection Agency, Ottawa, Ontario, Canada
- ¹⁰ (Reserved)
- ¹¹ (Reserved)

Rationale for Lists:

Host Plants Regulated for *Phytophthora ramorum*:

Naturally infected associated plants are deemed host plants regulated for *P. ramorum* upon completion, documentation, review and acceptance of traditional Koch's postulates. Details on regulated plants and articles can be found via links to "Phytophthora ramorum 7 CFR 301.92" and "Recent Modifications to Phytophthora ramorum Regulations" at: <http://www.aphis.usda.gov/ppq/ispm/pramorum>

The plants listed in the original Interim Rule dated 14 February 2002 were adapted from a review and evaluation of lists of regulated plants from other regulatory agencies.

Plants Associated with *Phytophthora ramorum*:

Plants associated with *P. ramorum* are naturally infected plants and from which *P. ramorum* has been cultured and/or detected using PCR (Polymerase Chain Reaction). Traditional Koch's postulates have not yet been completed nor documented and reviewed for each of these associated plants. These reports must be documented and reviewed by PPQ before they will be listed.

Regulation at the genus level:

Plants included in either of the above lists may be regulated at the genus level. This will ensure appropriate and effective inspection in quarantine areas, regulated nurseries, and regulated articles to mitigate the spread of *P. ramorum*. An example is when the number of individual species, hybrids, or cultivars listed or to be listed is determined to hinder appropriate and effective inspection or regulation.

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